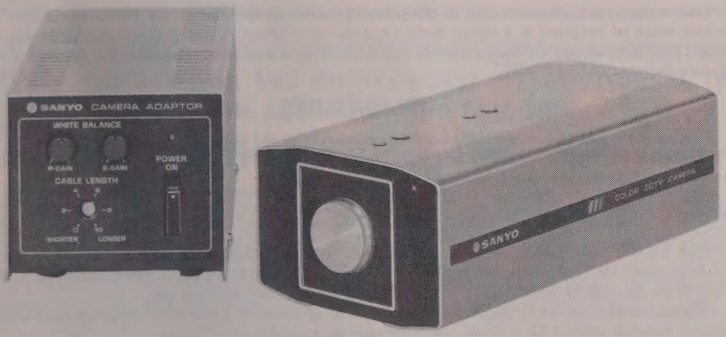
SANYO

VCC 3700



SANYO
COLOR CCTV CAMERA

OWNER'S MANUAL

MP MASTER
MA30289

LIMITED WARRANTY

THIS WARRANTY IS VALID ONLY ON SANYO PRODUCTS PURCHASED AND USED IN THE UNITED STATES OF AMERICA EXCEPT U.S. TERRITORIES AND PROTECTORATES. THIS WARRANTY APPLIES ONLY TO THE ORIGINAL USER. THIS WARRANTY DOES NOT APPLY TO PRODUCT IN USE FOR INDUSTRIAL, RENTAL OR COMMERCIAL PURPOSES.

Subject to OBLIGATIONS and EXCLUSIONS found below, this Sanyo product is warranted against manufacturing defects in metarial and workmanship for the period of Parts + Labor specified and Sanyo will repair or replace (at our option) any parts found to be defective. For the period specified under Parts, Sanyo will provide a replacement for any defective parts.

PARTS + LABOR	PARTS		IN HOME SERVICE
	PARTS ONLY	PICTURE/PROJECTION/IMAGE PICKUP TUBE	
1 YEAR	1 YEAR	6 MOS.	NONE

Each warranty period commences on the date of purchase by the original user. Performance under this warranty must be obtained at a Sanyo Authorized Service Station. A list of Sanyo Authorized Service Stations can be obtained from Sanyo Electric Inc., 1200 West Artesia Blvd., Compton, CA 90220, ATTEN: Warranty Service, (213/537-5830).

OBLIGATIONS

1. This warranty will be honored only on the presentation of the original dated bill of sale or sales slip.
2. Transportation of the product to and from the service station is the responsibility of the user unless specifically stated otherwise in this warranty.

EXCLUSIONS

1. THIS WARRANTY SHALL NOT COVER ADJUSTMENT OF CUSTOMER OPERATED CONTROLS AS EXPLAINED IN THE APPROPRIATE MODEL'S INSTRUCTION MANUAL OR PRODUCTS WHICH HAVE BEEN ALTERED, REPLACED, OR HAVE MISSING SERIAL NUMBERS:
2. This warranty shall not apply to the antenna nor to appearance or accessory items including, but not limited to cabinets, cabinet parts, knobs, batteries, cartridges, or styli.
3. This warranty does not apply to uncrating, setup, installation, or the removal and reinstallation of products for repair.
4. This warranty shall not apply to repairs or replacements necessitated by any cause beyond the control of Sanyo including, but not limited to, any malfunction, defects or failure caused by or resulting from unauthorized service or parts, damaged or broken video heads, improper maintenance, modification or repair by the user, abuse, misuse, neglect, accident, fire, flood or other Acts of God, incorrect line voltage, damage or image burns to television picture tubes caused by or attributable to the use of any accessory, electronics game or device, or damage caused to image pickup tubes by excessive light.

The foregoing is in lieu of all other expressed warranties and Sanyo does not authorize any party to assume for it any other obligation or liability. In no event shall Sanyo be liable for special or consequential damages arising from the use of this product, or for any delay in the performance of this warranty due to causes beyond our control.

SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS AND/OR DO NOT ALLOW THE EXCLUSION OR LIMITATION OF CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS ON IMPLIED WARRANTY AND CONSEQUENTIAL DAMAGES MAY NOT APPLY TO YOU.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS. YOU MAY HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

ATTENTION

For your protection in the event of theft or loss of this product, please fill in the information requested below:

Model No. _____ **Serial No.** _____

(Located on back or bottom side of unit)

Date of Purchase _____

Purchased Prise _____

Where Purchased _____

CAUTION

RISK OF ELECTRIC SHOCK DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

THIS SYMBOL INDICATES THAT DANGEROUS VOLTAGE CONSTITUTING A RISK OF ELECTRIC SHOCK IS PRESENT WITHIN THIS UNIT.

THIS SYMBOL INDICATES THAT THERE ARE IMPORTANT OPERATING AND MAINTENANCE INSTRUCTIONS IN THE LITERATURE ACCOMPANYING THIS UNIT.

WARNING

TO PREVENT RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE. DANGEROUSLY HIGH VOLTAGES ARE PRESENT INSIDE THE UNIT. DO NOT OPEN THE CABINET. REFER SERVICING TO QUALIFIED PERSONNEL ONLY.

CAUTIONS

Do not open the cabinet - High-voltage parts are contained and are dangerous.

Do not place objects inside the unit - Do not insert metal objects or burnable objects into the ventilation holes, as this may cause electrical shock or malfunction.

Avoid water - Do not place the unit near cups, etc., containing water. If water should accidently enter the unit and it is used in this condition, a malfunction may result.

Be sure never to point the camera directly at the sun - If the camera lens is pointed directly at the sun during use, or even when it is not in operation, the image-pickup tube inside the camera may be damaged.

Avoid burn-outs - Filming under strong incandescent or fluorescent lighting or filming an object reflecting outdoor light in the same position for a long period of time may cause burn-outs (darkened images) to occur.

Do not jolt the camera violently - If the camera is strongly jolted while the lens is facing downward, the image-pickup tube may be damaged.

If a malfunction should occur - If strange sounds, smells or smoke are noticed, further operation may be dangerous. Turn off the power immediately and contact your Dealer. If your Dealer is very far away, contact the nearest Sanyo Authorized Warranty Station.

CONGRATULATIONS. You are now the owner of one of the many fine products manufactured by Sanyo Electric Co., a world-wide leader in electronics. We take pride in our international reputation for product quality and industry proven performance.

This product has been carefully inspected to comply with rigid quality control standards before shipment to you. We are sure you will find that with reasonable care it will provide you with years of reliable performance.

Considering the investment you have made, we know that you will want to obtain the full performance capability engineered into your new Sanyo product. Therefore, may we recommend that you read this owner's manual thoroughly before attempting to operate this unit.

FEATURES

* Exceptionally compact design
* Consists of camera head and camera adaptor
* High performance, 2/3" NEWCOSVICON tube
* Only single coaxial cable is required to connect the camera head and camera adaptor
* High sensitivity, minimum required illumination of only 15 luxes
* Cable loss compensator
* Automatic internal/external sync switchover
* Simple white balance adjustment
* Interchangeable with C-mount lens

ACCESSORIES

The following accessories are included with this camera:

Camera Adaptor 1
Protective Cap 1

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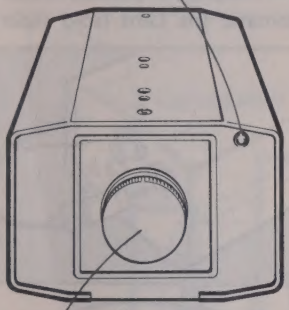
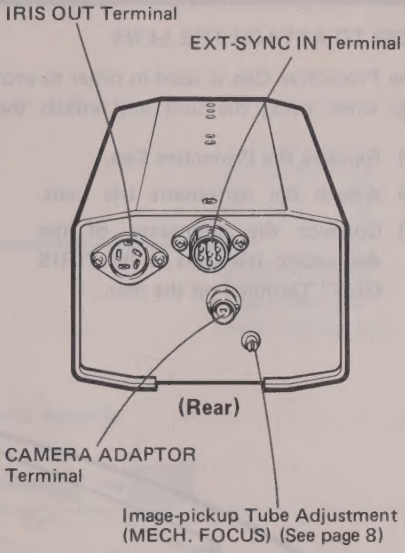
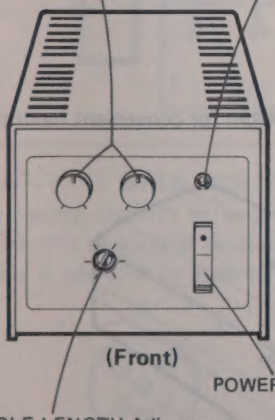
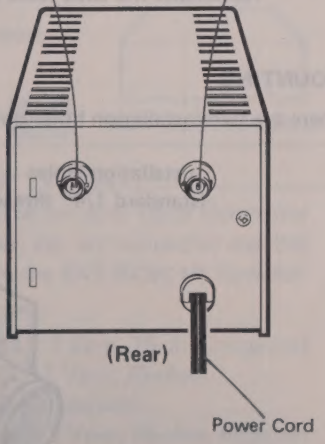
Camera Head





Camera Adaptor





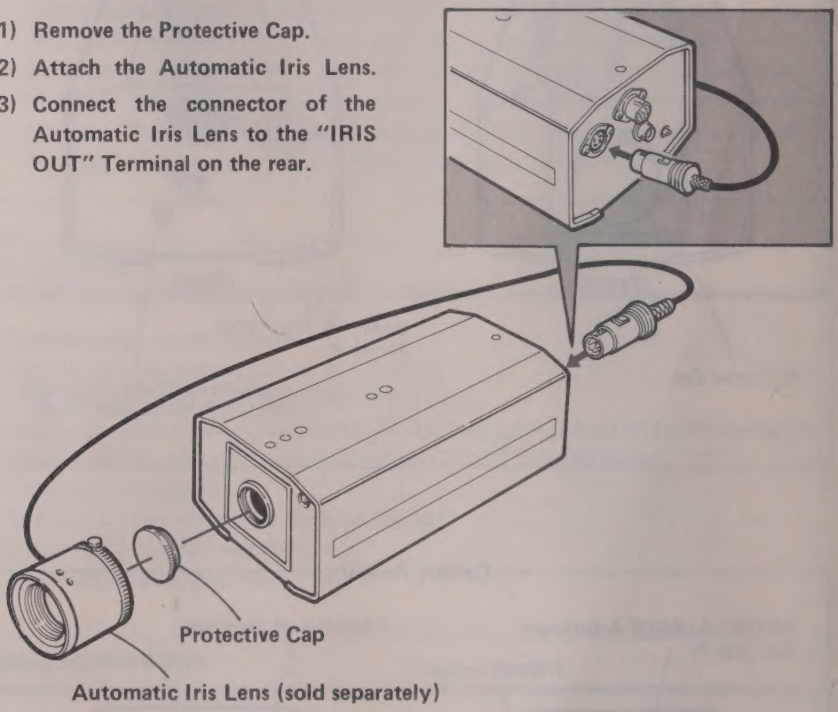
HOW TO ATTACH THE LENS

The Protective Cap is used in order to protect the Image-pickup Tube. Remove this cap when using the unit and attach the Automatic Iris Lens (sold separately).

(1) **Remove the Protective Cap.**

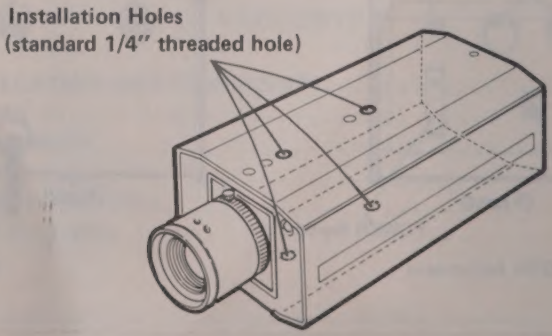
(2) **Attach the Automatic Iris Lens.**

(3) **Connect the connector of the Automatic Iris Lens to the "IRIS OUT" Terminal on the rear.**



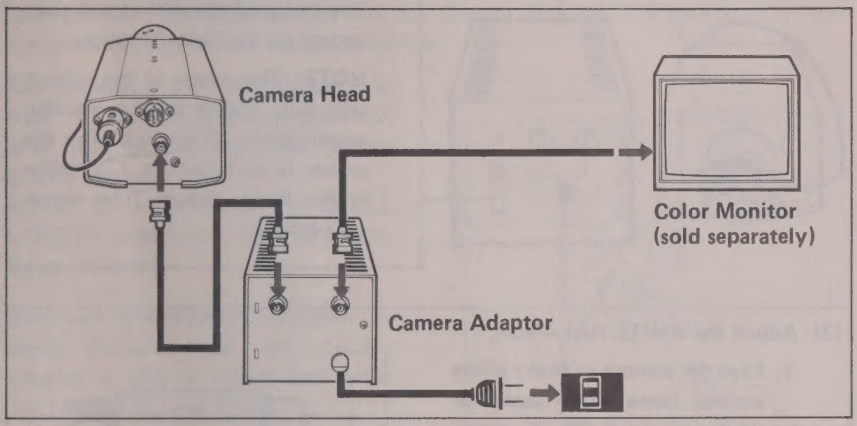
MOUNTING

There are two installation holes on the top and bottom for convenient mounting.

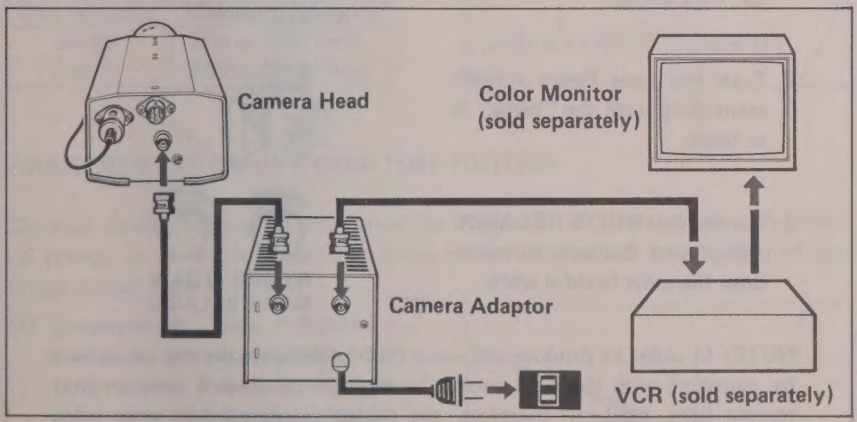


CONNECTIONS

USING WITH A MONITOR TV



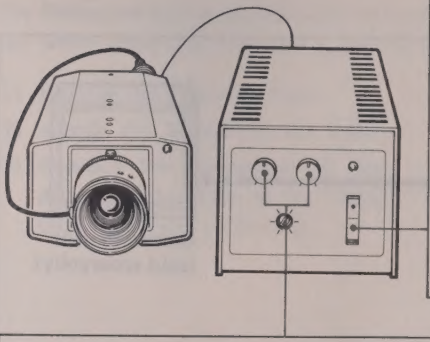
USING WITH A VIDEO RECORDER



WHEN USING "EXT-SYNC IN" TERMINAL

This camera employs an automatic internal/external sync signal switchover system. If a sync-signal generator, camera wiper, etc. are connected and this camera is operated by external sync signals, use the EXT-SYNC IN Terminal.

1. NC
2. VD (4 ± 2 Vp-p, 75-ohm, negative)
3. SC ($2 \pm \frac{2}{1}$ Vp-p, 75-ohm)
4. GND (sub carrier)
5. HD (4 ± 2 Vp-p, 75-ohm, negative)
6. GND (VD, HD)

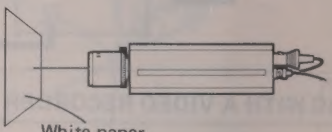


(1) **Set the POWER Switch to "ON".** The image of the subject will soon appear on the Color Monitor.

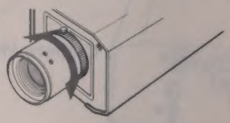
NOTE: The image of the subject will fully appear on the monitor screen about 10 seconds after the power is switched on. (This time is the Image-pickup Tube warm-up time.)

(2) **Adjust the WHITE BALANCE.**

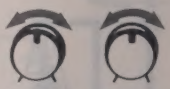
1. **Face the camera so that a white surface (pure white paper or similar material) fills the monitor TV's screen.**



2. **Turn the Lens Focus Adjustment Ring until the "scene" is in focus.**

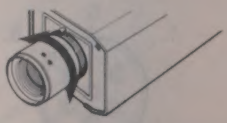


3. **Use the two WHITE BALANCE Adjustment Controls to reproduce the most faithful white.**



NOTE: In order to produce the most faithful color, make the adjustment by matching with the light source (sunlight, incandescent lamp or fluorescent light, etc.). If, therefore, the subject is recorded in some other location, where the light source is different, the WHITE BALANCE must be readjusted each time.

(3) **Preparations are now complete. Adjust the focus and angle depending on the subject.**



ADJUSTMENT OF CABLE LENGTH

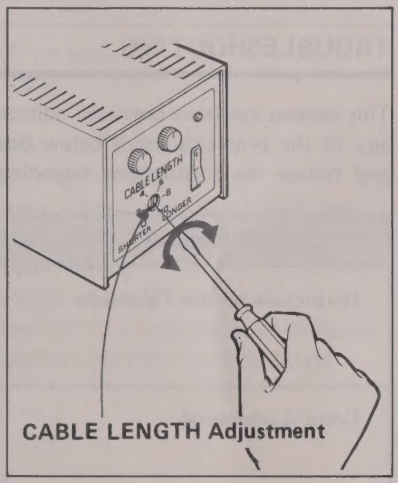
This adjustment provides electronic compensation for the length and type of cable used between the Camera Head and the Camera Adaptor. For optimum system performance, adjustment is made as follows:

Adjust CABLE LENGTH Adjustment from "0" position by turning clockwise until you get an optimum picture quality and contrast.

NOTE: Do not overturn the CABLE LENGTH Adjustment. Keep at smaller figure indicated.

Maximum recommended distance between Camera Head and Camera Adaptor is 500 m (1650 feet) when using 5C-2V Coaxial Cable.

Coaxial Cable	Maximum Distance
3C-2V	200 m (650 feet)
5C-2V	500 m (1650 feet)



CABLE LENGTH Adjustment

ADJUSTMENT OF IMAGE-PICKUP TUBE POSITION

Close-up viewing (within 50 cm) cannot be made with an ordinary lens. For close-up scenes, or if the lens' distance index is deviated, adjust the position of the Image-pickup Tube as follow:

(1) Image-pickup Tube Adjustment Screw is turned clockwise, the Image-pickup Tube will move toward the rear, making close-up viewing possible.

(2) To adjust the lens' distance index, measure the distance between the lens and the subject. If, for example, the distance is 1.5 m, set the 1.5 m mark on the Focus Adjustment Ring to the index. In this condition then, turn the Image-pickup Tube Adjustment Screw and focus the image shown on the monitor.

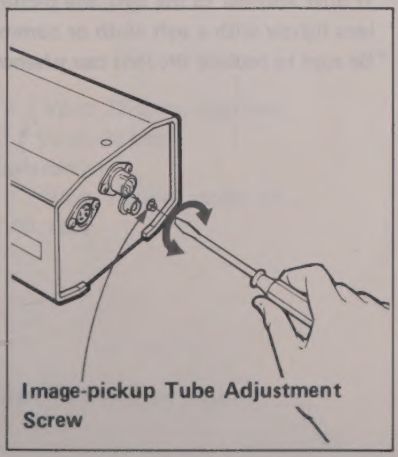


Image-pickup Tube Adjustment Screw

REPAIRS

This camera is a precision instrument and treated with care, will provide years of satisfactory performance. However, in the event of difficulty, the owner is advised not to attempt to make repairs or open the cabinet. Servicing should always be referred to your Servicing Dealer or Sanyo Authorized Warranty Station.

TROUBLESHOOTING

This camera has been precision adjusted at the factory; however, in the event that any of the problems listed below does occur, refer to this troubleshooting table, and follow the instructions regarding the appropriate adjustment or inspection.

Problem	Where to check
No picture on the TV screen	* Is the Camera Adaptor power on? * Is the cable connected properly? * Has the lens cap been removed?
Color is unnatural	* Is the illumination proper? * Is the white balance properly adjusted? * Is the television properly adjusted?
A picture is not clear	* Is the lens dirty? * Is the lens properly focused?

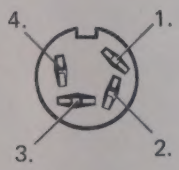
NOTES:

* If dust adheres to the lens, the picture quality will be adversely affected. Wipe the lens lightly with a soft cloth or commercially available lens cleaning paper.
* Be sure to replace the lens cap whenever the camera is not use.

SPECIFICATIONS

Color system	EIA standard NTSC color system
Scanning system	525 lines (2:1 interlace)
Synchronizing system	Internal/External synchronization
Image-pickup tube	2/3" NEWCOSVICON tube
Lens mounting	Standard C-mount
Horizontal resolution	360 lines
Minimum required illumination	15 luxes (F:1.4 lens)
Video output	1 Vp-p, 75-ohm
Video S/N ratio	46 dB
Environmental	Temperature: −10°C to 50°C Humidity: within 85 % RH
Dimensions	Camera Head: 100(W) x 66(H) x 220(D) mm Camera Adaptor: 90(W) x 83(H) x 200(D) mm
Weight	Camera Head: 1.25 kg Camera Adaptor: 1.95 kg
Power requirements	Camera Head: DC 12 V (supplied from Adaptor) Camera Adaptor: AC 120 V ± 10 %, 60 Hz
Power consumption	25 W

IRIS OUT Terminal



1. GND
2. Video output
3. NC
4. + 9 V

EXT-SYNC IN Terminal

1. NC
2. VD (4 ± 2 Vp-p, 75-ohm, negative)
3. SC ($2 \pm {}^{2}_{1}$ Vp-p, 75-ohm)
4. GND (sub carrier)
5. HD (4 ± 2 Vp-p, 75-ohm, negative)
6. GND (VD, HD)

*Features and specifications are subject to change without prior notice.

WARNING

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- reorient the receiving antenna
- relocate this equipment with respect to the receiver
- move this equipment away from the receiver
- plug the ac power adaptor into a different outlet so that adaptor and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal communications commission helpful:

"How to Identify and Resolve Radio-TV Interference Problems."

This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock No.004-000-00345-4.

SANYO

SANYO ELECTRIC INC.
1200 West Artesia Blvd.
P. O. BOX 5177
Compton, California 90220

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